

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-32 (Canceled).

Claim 33 (Currently Amended): An electromechanical microstructure comprising:
a first mechanical part formed in a first electrically conductive material, and which
comprises (1) a zone deformable in an elastic manner having a thickness value and an
exposed surface and (2) a first organic film having a thickness, present on a whole of the
exposed surface of the deformable zone;

an annular zone at a surface of the first mechanical part, surrounding the exposed
surface, having itself a surface and formed in a second electrically conductive material,
different in a sense of the electro-initiated reaction from the first electrically conductive
material of the first mechanical part; and

a second organic film present on the surface of the annular zone, the second organic
film formed in a material that may be deposited from an electro-initiated chemical reaction,
wherein the first organic film is includes an organic film bonded in a covalent manner
to the exposed surface of the deformable zone and formed from an electro-initiated reaction.

Claim 34 (Currently Amended): An The electromechanical microstructure according
to claim 33, wherein the thickness of the first organic film is such that elastic response of the
deformable zone equipped with the first organic film does not change by more than 5%
compared to a response of a bare deformable zone, or wherein the thickness of the first
organic film is less than ten times a thickness of the deformable zone.

Claim 35 (Currently Amended): An The electromechanical microstructure according to claim 33, wherein the thickness of the first organic film is such that elastic response of the deformable zone equipped with the first organic film does not change by more than 1%.

Claim 36 (Currently Amended): An The electromechanical microstructure according to claim 34, wherein the thickness of the first organic film is such that elastic response of the deformable zone equipped with the first organic film does not change by more than 1%.

Claim 37 (Currently Amended): An The electromechanical microstructure according to claim 33, wherein a level of cover of the exposed surface by the first organic film is greater than 60%.

Claim 38 (Currently Amended): An The electromechanical microstructure according to claim 34, wherein a level of cover of the exposed surface by the first organic film is greater than 60%.

Claim 39 (Currently Amended): An The electromechanical microstructure according to claim 37, wherein a level of cover of the exposed surface by the first organic film is greater than 90%.

Claim 40 (Currently Amended): An The electromechanical microstructure according to claim 35, wherein the first organic film includes a layer of a molecule of fixed length.

Claim 41-42 (Canceled).

Claim 43 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim 33, wherein the first electrically conductive material constituting the first mechanical part is a doped semi-conductor, ~~and comprising at a surface of the mechanical part, an annular zone, surrounding the exposed surface, having itself a surface and the annular zone is formed in a second material formed by doping of type opposite to that of the first material, and wherein a second organic film is present on the surface of the annular zone, the second film being a film formed in a material that may be deposited from an electro-initiated chemical reaction.~~

Claim 44 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim 34, wherein the first electrically conductive material constituting the first mechanical part is a doped semi-conductor, ~~and comprising at a surface of the mechanical part, an annular zone, surrounding the exposed surface, having itself a surface and the annular zone is formed in a second material formed by doping of type opposite to that of the first material, and wherein a second organic film is present on the surface of the annular zone, the second film being a film formed in a material that may be deposited from an electro-initiated chemical reaction.~~

Claim 45 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim [[41]] 33, wherein the first mechanical part comprises one or plural contact points in a position exterior to the annular zone.

Claim 46 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim [[41]] 33, wherein the first mechanical part comprises one or plural first contact points having a surface formed in a third electrically conductive material, different in a sense

of the electro-initiated reaction from the first electrically conductive material and second materials, in a position exterior to the annular zone, and wherein a third organic film is present on the surface of the first contact points, the third organic film being a film formed in a material that may be deposited from an electro-initiated chemical reaction.

Claim 47 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim 43, wherein the first mechanical part comprises one or plural first contact points having a surface formed in a third electrically conductive material, different in a sense of the electro-initiated reaction from the first material and second electrically conductive materials, in a position exterior to the annular zone, and wherein a third organic film is present on the surface of the first contact points, the third organic film being a film formed in a material that may be deposited from an electro-initiated chemical reaction.

Claim 48 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim 46, further comprising a second electrically conductive part, electrically insulated from and mechanically integral with the first mechanical part comprising one or plural second contact points having a surface formed in a material different in the sense of the electro-initiated reaction from ~~the a~~ material constituting the second part, and wherein a fourth organic film is present on the surface of the second contact points, the fourth organic film being a film formed in a material that may be deposited from an electro-initiated chemical reaction.

Claim 49 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim 47, further comprising a second electrically conductive part, electrically insulated from and mechanically integral with the first mechanical part comprising one or plural

second contact points having a surface formed in a material different in the sense of the electro-initiated reaction from the a material constituting the second part, and wherein a fourth organic film is present on the surface of the second contact points, the fourth organic film ~~being a film~~ formed in a material that may be deposited from an electro-initiated chemical reaction.

Claim 50 (Currently Amended): An The electromechanical microstructure according to claim 48, further comprising a third part, mechanically integral with the first mechanical part and the second part and second mechanical parts, electrically insulated from the first mechanical part, formed in an electrically conductive material, and wherein the second part and the third part are electrically connected.

Claim 51 (Currently Amended): An The electromechanical microstructure according to claim 49, wherein the first mechanical part includes a first layer of silicon, and wherein the first mechanical part and second part parts are integral with a same insulating layer.

Claim 52 (Currently Amended): An The electromechanical microstructure according to claim 50, wherein the mechanical first part includes a first layer of monocrystalline silicon, and wherein the first mechanical part and second part parts are integral with a same insulating layer, and wherein the third part includes a second layer of silicon on which lies the insulating layer.

Claim 53 (Currently Amended): An The electromechanical microstructure according to claim 51, wherein the insulating layer comprises a recess situated immediately underneath the deformable zone.

Claim 54 (Currently Amended): An The electromechanical microstructure according to claim [[33]] 52, wherein the insulating layer comprises a recess situated immediately underneath the deformable zone.

Claim 55 (Currently Amended): An electromechanical microstructure comprising: according to claim 33,

a first mechanical part formed in a first electrically conductive material, and which comprises (1) a zone deformable in an elastic manner having a thickness value and an exposed surface and (2) a first organic film having a thickness, present on a whole of the exposed surface of the deformable zone,

wherein the first organic film is bonded in a covalent manner to the exposed surface of the deformable zone and formed from an electro-initiated reaction, and

wherein the first electrically conductive material constituting the first mechanical part is a doped semi-conductor, and wherein a doping of type opposite to that of the first material defines an electrode contact at a surface of the first mechanical part outside of the exposed surface.

Claim 56 (Currently Amended): An The electromechanical microstructure according to claim [[34]] 33, wherein the first electrically conductive material constituting the first mechanical part is a doped semi-conductor, and wherein a doping of type opposite to that of the first material defines an electrode contact at a surface of the first mechanical part outside of the exposed surface.

Claim 57 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim 46, wherein the first electrically conductive material constituting the first mechanical part is a doped semi-conductor, and wherein a doping of type opposite to that of the first material defines an electrode contact at a surface of the first mechanical part outside of the exposed surface.

Claim 58 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim 33, wherein the first organic film is in a material such that the exposed surface of the deformable zone covered with this film has biocompatibility, non cytotoxicity, and/or anti-adhesion or cellular anti-proliferation functions.

Claim 59 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim 34, wherein the first organic film is in a material such that the exposed surface of the deformable zone covered with this film has biocompatibility, non cytotoxicity, and/or anti-adhesion or cellular anti-proliferation functions.

Claim 60 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim [[41]] 33, wherein the second organic film is a film with biocompatibility and non-cytotoxicity functions.

Claim 61 (Currently Amended): ~~An~~ The electromechanical microstructure according to claim 46, wherein the second organic film is a film with biocompatibility and non-cytotoxicity functions.

Claim 62 (Currently Amended): A pressure sensor incorporating ~~an~~ the electromechanical microstructure according to claim 61.

Claim 63 (Currently Amended): A wafer comprising:
a series of the electromechanical microstructures comprising,
a first mechanical part formed in a first electrically conductive material, and
which comprises (1) a zone deformable in an elastic manner having a thickness value
and an exposed surface and (2) a first organic film having a thickness, present on a
whole of the exposed surface of the deformable zone,
wherein the first organic film is bonded in a covalent manner to the exposed
surface of the deformable zone and formed from an electro-initiated reaction; and
~~according to claim 33, and comprising~~
a first shared electrode electrically connecting all of the first mechanical parts of the
series of the electromechanical microstructures between them.

Claim 64 (Currently Amended): A wafer comprising a series of the electromechanical microstructures according to claim [[34]] 33, and comprising a first shared electrode electrically connecting all of the first mechanical parts of the series of the electromechanical microstructures between them.

Claim 65 (Canceled).

Claim 66 (Currently Amended): A wafer comprising a series of the electromechanical microstructures according to claim 46, and comprising a first shared

electrode electrically connecting all of the first mechanical parts of the series of the electromechanical microstructures between them.

Claim 67 (Currently Amended): A wafer comprising a series of the electromechanical microstructures according to claim 43, and comprising a first shared electrode electrically connecting all of the annular zones between them, and wherein a polarity necessary to electro-initiate the first organic film corresponds to an open sense of a diode created by the doping in a sense annular zone towards the deformable zone of the first mechanical part.

Claim 68 (Currently Amended): A wafer comprising a series of the electromechanical microstructures according to claim 43, and comprising a first shared electrode electrically connecting all of the first mechanical parts of the series of the electromechanical microstructures between them, and wherein a polarity necessary to electro-initiate the second organic film corresponds to an open sense of a diode created by the doping in a sense from the deformable zone towards the annular zone of the first mechanical part.

Claim 69 (Currently Amended): A wafer comprising a series of the electromechanical microstructures according to claim 47, and comprising a first shared electrode electrically connecting all of the first mechanical parts of the series of the electromechanical microstructures between them, and wherein a polarity necessary to electro-initiate the second organic film corresponds to an open sense of a diode created by the doping in a sense from the deformable zone towards the annular zone of the first mechanical part.

Claim 70 (Currently Amended): A wafer comprising a series of the electromechanical microstructures according to claim 47, and comprising a first shared electrode electrically connecting all of the annular zones between them, and wherein a polarity necessary to electro-initiate the first and third organic films is identical and corresponds to an open sense of a diode created by the doping in a sense annular zone to the deformable zone of the first mechanical part.

Claim 71 (Currently Amended): A wafer comprising a series of the electromechanical microstructures according to claim 48, and comprising a first shared electrode electrically connecting all of the first mechanical parts of the series of the electromechanical microstructures between them and a second shared electrode formed on the surface of the wafer electrically ~~connecting all of connected to~~ the second mechanical part parts.

Claim 72 (Currently Amended): A wafer comprising a series of the electromechanical microstructures according to claim 50, and comprising a first shared electrode electrically connecting all of the first mechanical parts of the series of the electromechanical microstructures between them and a second shared electrode formed on the surface of the wafer electrically ~~connecting all of connected to~~ the second mechanical part parts.

Claim 73 (Currently Amended): A wafer comprising a series of the electromechanical microstructures according to claim 55, and comprising a first shared electrode electrically connecting all of the electrode pads and wherein a polarity necessary to

electro-initiate the organic films corresponds to an open sense of a diode created by the doping in a sense from the electrode contact towards the mechanical part.

Claim 74 (Currently Amended): A microsystem comprising ~~an~~ the electromechanical microstructure according to claim 33, electrically assembled with a front face turned round on an interconnection support comprising an opening facing the deformable zone part of the microstructure.

Claim 75 (Currently Amended): A microsystem comprising ~~an~~ the electromechanical microstructure according to claim [[41]] 33, electrically assembled with a front face turned round on an interconnection support comprising an opening facing the deformable zone of the microstructure, ~~the~~ a film of the annular zone of the microstructure being in an insulating thermofusible material and coming into contact with a substrate of the support to form a sealing joint around the deformable zone of the microstructure.

Claim 76 (Currently Amended): A microsystem comprising ~~an~~ the electromechanical microstructure according to claim 46, electrically assembled with a front face turned round on an interconnection support comprising an opening leading out opposite the deformable zone of the microstructure, ~~the~~ a film of the annular zone of the microstructure being in an insulating thermofusible material and coming into contact with a substrate of the support to form a sealing joint around the deformable zone of the microstructure, the film of contact points of the microstructure being in a conductive thermofusible material and coming into contact with pads of the support to form a mechanical and electrical connection between the microstructure and the support.

Claim 77 (Currently Amended): A The microsystem according to claim 76, wherein contact points of the support comprise a film formed in a conductive thermofusible material obtained from an electro-initiated reaction, the pads coming into contact with films of the contact points of the microstructure to ensure an electrical and mechanical connection between the support and the microstructure by heat sealing.

Claim 78 (Currently Amended): A The microsystem according to claim 75, wherein a substrate of the support comprises a film formed in a thermofusible insulating material obtained from an electro-initiated reaction, a part of the substrate coming into contact with the film of the annular zone of the microstructure to form a sealing joint around the deformable zone of the microstructure by heat sealing.

Claim 79 (Currently Amended): A The microsystem according to claim 74, wherein the support is formed from a wafer in silicon, and comprising a probe connected to a dedicated electronic component itself assembled on the support.